

A new species of *Thestor* Hubner (Lepidoptera -
Lycaenidae) from the Western Cape Province and
notes on the life history of *Desmolycaena*
mazoensis Trimen.

by

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Introduction. Three papers have been published in recent years by Dr. G. van Son of the Transvaal Museum describing new species of the genus *Thestor* Hubner (Journal of the Entomological Society of Southern Africa Vol. IV, 179-196, 1941, Annals of the Transvaal Museum, Vol. XXI, Part 2, 214-6, 1949 and Part 4, 439-445, 1951). Thus seven new species and two new subspecies were added to the known three species of this group, showing a concentration in the S. W. Cape. Not long afterwards D. A. Swanepoel created another species (Journal of the Entomological Society of Southern Africa, Vol. XVI (2), 191, 1953). The next year N. D. Riley described a new species and a new subspecies (The Entomologist, Vol. 87, No. 1092/3, 1954). I now describe yet another, which I have great pleasure in naming after my friend, N. D. Riley, who has just retired after many years of distinguished work as Keeper of Entomology at the British Museum. The astonishing increase in the number of recorded species during the last 15 years poses pretty problems of evolution. It may yet be that several more will be found when the isolated ranges of mountains in the Cape have been systematically searched.

Thestor rileyi n.sp.

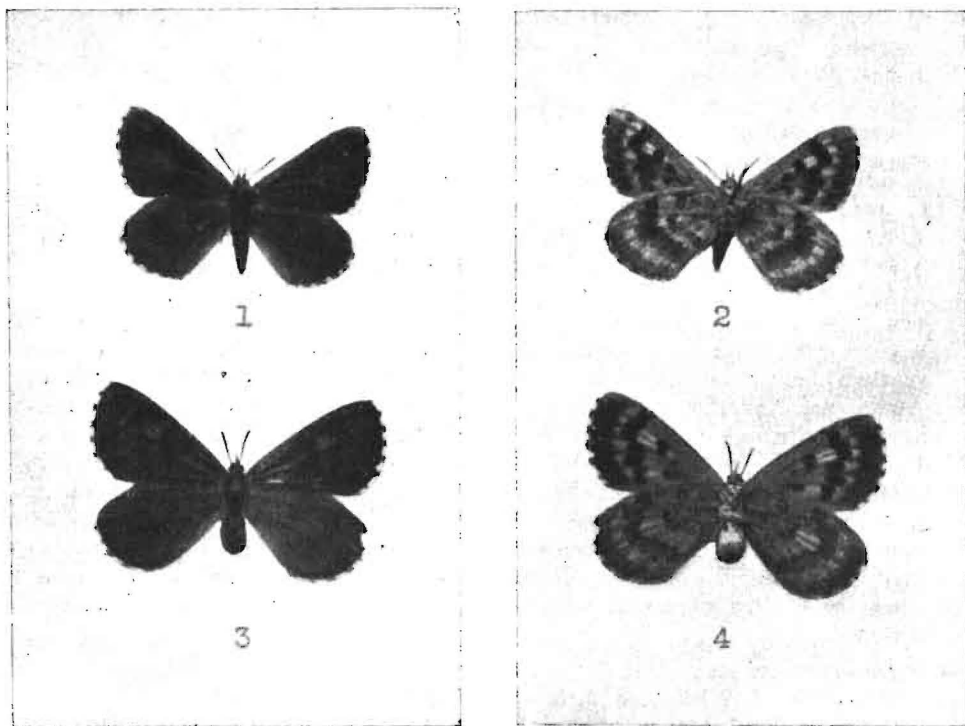
(Plate figs. 1, 2 holotype ♂, 3, 4 allotype ♀).

Holotype ♂, allotype ♀, 4 paratypes (3 ♂♂, 1 ♀) taken by me at Lourensford, Somerset West, C. P. at 1550 ft. on Dec. 24 & 26th, 1954, all in my collection.

Diagnosis. This new species falls into the group of dark *Thestor*, which includes five others — *brachycerus* Trimen, *dukei* van Son, *penningtoni* van Son, *holmesi* van Son and *obscurus* van Son. Though the presence of a small white tip to the apex of the forewing upperside allies it to the first two, the general resemblance of all six species is sufficiently close to warrant an attempt at a tabulated comparison, which I shall append to this paper. This may assist others to separate them. So far as is known, they are scattered over a considerable area of the S. W. Cape, but each species appears to be confined to isolated pockets, varying from the high Karroo (4100') at the top of the

Hex River Pass along the road from Matroosberg to Koo to the sandy flats at sea-level at Stilbaai, and from the windy summit of the Zwartberg Pass (5200') to the more sheltered valleys round the Hottentots Holland range, while one is only known from a few localities on the Peninsula mountains.

Description of Holotype. On the upperside the head, palpi, antennae, thorax and abdomen are all dark brown, while beneath they are whitish grey. Legs are clothed with white hairs.



Wings. *Upperside*-dark mummy brown with cilia light brown, broadly checkered with white between the veins and having a thin dark line along their middle. *Forewing*-slightly lighter along basal half of costa and cell. Small black discocellular spot, not sharply defined, is indistinctly connected with smaller dark spot at base of lighter coloured triple-pronged sex mark, which runs along basal half of veins 2, 3 and 4. Black discal band, slightly curved, starts near costa and is continuous to vein 4, where it is broken, by the sex mark, into two small dark triangular spots, with apex basad, and ends with long narrow indistinct black line along lowest prong. The apex is narrowly white tipped. *Hindwing*-ill-defined thin black discocellular spot, and broad, evenly curved black discal band from vein 2 to 6.

Underside. Both wings light whitish grey with typical darker markings. Cilia as above. *Forewing:* a thin fairly distinct elongate black spot in the cell about one third from base, and a longer and wider one in lower half of cell, nearer to large quadrate discocellular bar than is the case with *brachycerus* and *dukei*. Discal band is very broad and even from costa to vein 4, where its proximal edge makes a right angle, and thereafter broken into four large black spots by the lighter brown of the veins, the largest being in area 2. This projects considerably distally in marked contrast to all the other dark species. A very long spot stretches from the origin of vein 2 basad through area 1b. A postdiscal series of indistinct rather rounded sagittate marks, the ground colour between them and the termen being much darker, with the veins somewhat lighter. *Hindwing:* The usual basal spots a little darker than ground colour, and median band of rounded spots darkest on costa and at end of cell. Discal band of wide oval spots is considerably darker than the ground colour with its inner and outer edges evenly curved and scalloped. The sagittate postdiscal marks minute and very indistinct. Terminal area is only slightly darker than ground colour.

Genitalia. *Uncus* stalk is very short with curved prongs tapering evenly to sharp point; *falces* about the same length as uncus, not quite as slender, strongly curved, also tapers to acute tip; *labides* are very long, longer than in all known allied species and almost as long as *falces*, with round end; *aedeagus* robust as in *dukei*, but slightly longer, with distal end obliquely excised; *valve* decidedly concave before dorsal rounded angulation, which is rather beyond middle, apical lobe small, rounded, incurved, below middle of distal edge.

Description of allotype ♀. *Wings upperside-forewing.* This is very similar to the ♂ in colour, but is larger and termen more rounded. The absence of the sex mark makes the discal band broader and more prominent. There is a distinct brownish-white diffuse patch beyond the discocellular spot broken by vein 5 being dark. *Hindwing:* just like ♂. *Underside:* like ♂ except that in forewing the terminal area is broader and darker, and in the hindwing the distal band is not as wide, which makes the light grey area between it and the median band much larger.

The paratypes show little variation, except that in two ♂♂ there is a faint indication of the light postdiscocellular patch, which is so characteristic of *brachycerus* and *dukei*.

T. rileyi is nearest to *dukei* on the upperside, the cilia being lighter brown. The ground colour of *brachycerus* is lighter, especially in hindwing, and the white tip to the apex is much more prominent than *rileyi*. These three species are not as dark as *obscurus*, *holmesi* and *penningtoni*, in each of which the cilia are almost black and white. But the main differences are in the spots of the underside, *rileyi* also having a distinctly whiter grey ground colour. I give a tabular list of the main features of the six species, which should facilitate separation, though it must be remembered that the spots are often variable.

I captured this new species, fluttering near the ground near the edge of a pine forest. Their fresh condition indicates they were hatching there. It

	brachycerus	dukei	rileyi	penningtoni	holmesi	obscur
<i>Forewing underside</i>						
1. sub-basal spot in cell	×		×		×	
2. mid-cell spot double	×	×		×	×	
3. mid-cell spot single			×			
4. no mid-cell spot						×
5. discal band-spot in area 2 protrudes distad			×			
6. no discal spots in area 1a & b				×		
7. long spot in area 1b from origin vein 2 basad			×			
8. sagittate marks very prominent	×					
9. sagittate marks small but clear		×		×	×	
10. sagittate marks indistinct and rounded			×			×
<i>Hindwing underside</i>						
1. discal band strongly excurvate	×			×	×	
2. discal band slightly excurvate		×				
3. sagittate marks small, but clear	×			×	×	×
4. sagittate marks indistinct or missing		×	×			

seems likely that further search will show that it inhabits a wide area in the horseshoe covered by the Lourensford and Vergelegen estates.

I wish to acknowledge the ready help of my friend, C. G. Dickson, in preparing the slide of genitalia, and to thank C. J. H. Over for taking the photograph of the types. Mr. Dickson agreed with me in considering that the differences in the genitalia of *T. rileyi* from the allied species deserved specific rank, quite apart from the other marks which distinguish the facies.

Desmolycaena mazoensis Trimen

1898 Trans. ent. Soc. Lond. pt 1, p. 8.

No records appear to have been published of the life history of this beautiful Lycaenid. In October 1953 I camped in the foothills of the southern end of the Lebombo hills in Zululand, and on the second morning chanced to spot a male with its wings still soft sitting on a leaf of *Acacia* sp. Later careful search was made, and a number of fully grown light green larvae were found, sheltering inside dead twigs, which had been "bored" by other insects, sometimes as much as two or three inches from the entrance. This led to the detection of several pupae, neatly attached to white silk beds, with their heads facing the outlets. The pupae were narrow and dark brown, and all hatched within three or four days into perfect specimens of both sexes. The tree is common in that area, and was growing in a gully at the foot of a koppie, where for some years I had taken ♂♂, flying at midday round certain trees. The ♀♀ seem comparatively sluggish and haunt the lower slopes. There seems little doubt that this very local species feeds on the young shoots of this *Acacia*, though in spite of watching for long periods no larvae were seen actually eating them.